

DESCRIPTION OF TWO NEW AUSTRALIAN PHASMAS,
TOGETHER WITH A SYNOPSIS OF THE PHASMIDÆ IN
AUSTRALIA.

By W. J. RAINBOW, Entomologist.

(Plates ix., x.)

The first of the two Phasmas described below is of more than ordinary interest, not only on account of its size and beauty, but also from the fact that although very close to the genus *Acrophylla*, Gray, it differs from that by the great length of its ovipositor. In *Acrophylla* the ovipositor is boat-shaped, keeled below, and does not exceed the end of the abdomen. Kirby, in a paper "On the Phasmidæ of Madagascar,"* enumerates a small collection of four previously known species, and describes a fifth, for which he founds a new genus, *Enetia*, the characters of which are:—*"Female*.—Allied to *Acrophylla*, but with the head and pro-notum spined above; wings not longer than broad; ovipositor boat-shaped, keeled below, extending considerably beyond the abdomen." In the species described below, the head and pro-notum are devoid of spines, and the wings are somewhat longer than broad, consequently it will have to come in between *Acrophylla*, Gray, and *Enetia*, W. F. Kirby.

Order ORTHOPTERA.

Family PHASMIDÆ.

Sub-Family PTEROPHASMINA.

Genus *Clemacantha*, gen. nov.

Characters of Genus.—♀ allied to *Acrophylla*; wings longer than broad; ovipositor boat-shaped, keeled below, extending considerably beyond the abdomen.

CLEMACANTHA REGALE, sp. nov.

(Pl. ix., Figs. 1, 2, and 3.)

♀. Measurements (in millimeters): Length from base of antennæ to tip of abdomen, excluding ovipositor and anal styles, 177; expanse of wings, 190; length of head, 9; antennæ, 20; pro-notum, 8·9; meso-notum, 26·8; meta-notum, 14·1; abdomen, 111;

* Ann. and Mag. Nat. Hist., Vol. viii., 6th Series, 1891, pp. 150-151.

anal styles, 12·5; ovipositor, 42; anterior femora, 36·5; hind femora, 40; tegmina, 40; greatest width of abdomen, 12·5; tegmina, 14; wing, 56.

Head pale yellow above, with broad median longitudinal bar of bright blue, sides blue above, pea-green below; face green; eyes black on narrow whitish wings; ocelli bright, glassy, with a reddish-brown tint; antennæ 25-jointed, slightly pubescent.

Pro-notum green above, yellowish in the median line, white laterally, yellow below with green margins; meso-notum yellow with broad median bar of bright blue, sides pea-green in front, darker behind, yellow below; the upper surface, sides, and under surface furnished with spines varying in size, those above and below are blue, and those at the sides green; the spines on the ventral surface are uniform in size, ten in number, arranged obliquely and in pairs, and surrounded with patches of blue; meta-notum yellowish in front, green behind, with a median longitudinal line of blue, sides yellow in front, green behind, the lower margins are also green, and furnished with a row of small green spines; ventral surface yellow, ornamented with four transverse bars of blue, and armed with eight spines; of these the anterior bar is the shortest and narrowest, the third and fourth is the longest and broadest; with the exception of the anterior bar, which is horizontal, all are slightly curved in a forward direction, and each bar is armed with a spine near its lateral extremity.

Abdomen long, broadest at the middle, tapering, bright green above with narrow median line of blue, under-surface pea-green; anal styles long, green; ovipositor projecting considerably beyond the abdomen, green, boat-shaped, keeled below.

Tegmina, elongate, ovate, green above, with white longitudinal bars and patches, the bars suffused with purple; underneath the anterior margin is bright red, and edged with green.

Wings: above, the costal area is bright green with white longitudinal bars suffused with purple, and the base bright red; underneath, the entire surface is bright red also; membranous portion pea-green.

Legs long, slender, with denticulated ridges, mottled with green and yellow; tibiai of hind pair strongly spined on the inner side; first joint of tarsi longest, and the fifth longer than the fourth; claws long and strong.

Hab. Narrabri.

Three specimens similar to the one described, but with the meso-notum less strongly spined, are in the collection of the Australian Museum, and were taken at Wide Bay, Queensland. The specimen from which the description is written was captured by Mrs. Langhorne, Oreel Station, Narrabri. The Australian vernacular name for these insects is "Native Ladies."

*Genus Tropicoderus, G. Gray.**TROPIDODERUS DECIPIENS, sp. nov.*

(Plate x., Figs. 1, 2, 3 and 4.)

♀ Measurements (in millimeters): Length from base of antennæ to tip of abdomen, excluding ovipositor and anal styles, 130·5; expanse of wings, 172; length of head, 7·6; antennæ, 24·4; pro-notum, 6·7; meso-notum, 14·3; meta-notum, 9·2; abdomen, 90·6; anal styles, 6·5; ovipositor, 27·4; anterior femora, 32·5; median femora, 23·8; hind femora, 28·5; tegmina, 43·6; greatest width of abdomen, 13·5; anterior femora, 3·2; median femora, 6·8; anterior femora, 8·2; tegmina, 18·3; wing, 63·1.

Head, antennæ, legs, ovipositor and anal styles, green.

Pro-notum arched, moderately granulated above and below; meso- and meta-notum keeled in the median line and laterally; the median keel of the former only finely serrated, but the lateral keels of both more strongly so; these two latter are also more profusely granulated on superior and inferior surfaces than the pro-notum; meta-notum purple laterally; at the base of the latter there is also a median patch suffused with the same colour.

Abdomen keeled above and laterally; superior surface and sides of a pinkish colour with the exception of the lateral keels, which are green; inferior surface green, profusely granulated. Ovipositor boat-shaped, bright green, extending slightly beyond tip of abdomen, strongly but finely granulated, keeled below.

Tegmina elongate, ovate, keeled; the one on the right bright green above and below, that on the left bright green on the outer half of the superior surface, including the base and tip of the inner portion, the remainder creamy white.

Wings.—Costal area of each wing purple at the base, from thence to about one-third the length, there is a pale green patch sharply rounded off at its ultimate extremity; the remainder of the costal area above and below, bright green; the hyaline membrane nearly colourless, or with a slight greenish hue; veins palish pea-green.

Legs simple; median pair hollowed out at base to receive the head; the femora of median and hind pairs flattened out to resemble foliage, their edges strongly serrated; meta-tarsi and tarsi brownish.

Hab. Gordon.

This beautiful insect, which so strongly simulates the foliage of plants, is a typical example of Australian Phasmidæ. It will be noticed in reading the above detailed description that there is a striking difference in the colouration of the tegmina, the one on

the right being entirely bright green, while that on the left has a large creamy-whitish patch. In connection with this it must be explained that when at rest the latter is always folded uppermost, and is therefore exceedingly beneficial to the insect, assisting it to elude detection by predatory foes, the whitish patch in contrast with the bright green portion having the appearance of a green leaf lighted by the sun's rays filtering through the foliage.

The specimen from which the above description was written, and which therefore forms the type of the species, was presented to the Museum by Miss Ansell, of Paddington; in addition to this, we have in our cabinet collection a specimen taken by Mr. A. J. North, of the Australian Museum, at Ashfield, in 1895.

CATALOGUE OF THE DESCRIBED PHASMIDÆ OF AUSTRALIA.

By W. J. RAINBOW, Entomologist.

Family PHASMIDÆ.

Genus Bacillus, Latr.

B. brunneus, G. R. Gray, Ent. Aust., pl. vii., fig. 3; Syn. Phasm., p. 21.

Burm., Handb. d. Ent. ii., 2, p. 562.

Westwood, Cat. of Orthop. Insects of the British Museum, Pt. 1, Phasmidæ, p. 12. London, 1859.

Hab. Perth, W. Australia.

B. australis, Charpentier, Orth. Descr. ♂ et ♀., pl. lvii.

Westwood, *loc. cit.*, pp. 12 and 179.

Hab. Australia.

B. dolomedes, Westwood, *loc. cit.*, p. 13, pl. v., fig. 4.

Hab. Australia.

B. peristhenes, Westwood, *loc. cit.*, p. 13, pl. vii., figs. 1, 1a., ♂, pl. viii., figs. 2, 2a., ♀.

Hab. Australia.

B. peridromes, Westwood, *loc. cit.*, pp. 13-14, pl. viii., figs. 2b., 2c.

Hab. Australia.

Genus Pachymorpha, Gray.

P. squalida, ♀ var., *loc. cit.*, p. 15, pl. xxii., figs. 4, 4a., 4b.

Bacillus squalidus, Hope MS.

G. R. Gray, Ent. Aust., p. 3, fig. 2; Syn. Phasm., p. 21

(*Pachymorpha squalida*).

Seville, H. n. Orth., p. 260.

Burm., Handb. d. Ent., ii., 2, p. 562.

Hab. Australia.